

Ferns—Facts and Fancies About Them—VII

F. E. CORNE

The best time to transplant hardy ferns is also in the spring, but, as with house ferns, if care is taken not to disturb the roots, it may be successfully done at almost any time. If not to be replanted immediately, a quantity of wet sphagnum-moss should be wrapped about the ball of earth, and then all done up in heavy oiled paper to keep in the moisture; the kind used by fish dealers I find the best. The ferns will then keep nicely for a week or longer, and may be sent long distances by express or parcel post. One or two pieces of wood the length of the plant should be securely tied to the roots to prevent the plant from slipping and crushing the fronds. The whole should then be wrapped in corrugated pasteboard—the kind corrugated on one side only—or it may be securely fastened in a pasteboard or wooden box. Little ones travel well in *tin* biscuit boxes, never in pasteboard, if going on longer than a day's journey. The important thing is of course to keep the earth about the roots fresh and moist, and small ones dry out quickly. I have more than once had the disappointment of receiving valuable ferns dried out and ruined by improper or careless packing.

We all like to gather fern fronds in summer to put in vases of water either by themselves or with flowers to which they add so much grace, and it is well to know which will keep fresh in that way. The *Dicksonia*, or hayscented fern, is one of the very best for that purpose. It is delicate and graceful in appearance and if properly treated at first will keep fresh for nearly a week, and then, instead of withering, will gradually turn yellow, emitting all the while more and more of its delicious

fragrance. This fern frequently turns pure white at a touch of frost, which fact accounts for one of its many English names "gossamer fern." Ghost fern would seem to be almost more appropriate. The Christmas fern, marginal and spinulose shield ferns, polypody and some others will also keep fresh for some days, but all will keep longer if thrown into a tub of water when first gathered and left there until the fronds are thoroughly soaked.

The building up of an herbarium you will find to be a very agreeable pastime requiring of course some patience, and, to secure satisfactory results, taste and skill in mounting, but perhaps all the more alluring on that very account. When starting out to gather specimens, even if not going far, take a sharp knife and something in which to carry your finds. For a short distance a newspaper may be sufficient. Never hold in the warm hand a frond which you are intending to press and mount as the delicate lower pinnae or leaflets are apt to get injured, and mounted specimens should be as perfect as possible. Besides this some of the sturdiest looking, like the Sensitive fern, wilt very quickly after they are gathered, and the warmth of the hand hastens the process. Be careful to get the whole length of the stem, and if possible, and especially if small, a bit of the rootstock also as this adds to its value as a specimen and helps to identify species. In case of very small plants, if they are plentiful and not so rare that you commit vandalism in so doing, get a whole one root and all. Wash off while still soft any earth which may adhere to it, as later when pressed and dry this forms an unsightly mass which can no longer be removed and obscures the beauty of the root growth. Be sure if possible to gather both sterile and fertile fronds and, especially

if not familiar with them, tie them together with a bit of string, or place the fronds from each fern in separate papers to prevent confusion later. Also it is well to have on hand some slips of paper, or a small block on which to record at once the date and place of gathering and any other data which may add to the interest. If going off for some hours or longer a vasculum or botanist's tin box is almost indispensable. If this is supplied with some bits of damp moss the specimens will remain fresh in it for some days, though it is well to sprinkle them occasionally. Some carry a press, and put their specimens in it at once, but this is cumbersome and may cause annoying delays, especially to one's companions. A good sized portfolio, not less than 13 x 17 inches, containing sheets of damp paper is also good, or even a square waterproof bag held in shape by a sheet of corrugated pasteboard and supplied with damp newspaper will do fairly well. In addition a book or small portfolio for very small fronds is a help. The one important thing is of course not to allow the gathered fronds to wither before they are put in press. If any are too large to mount on the regulation $11\frac{1}{2}$ x $16\frac{1}{2}$ mounting sheets, they should be folded over once or even twice before pressing, as later they will be too brittle, and will break and look unsightly. If very large, only parts of fronds can be used, or they may be mounted in sections. On reaching home, if any fronds are quite withered they are of course useless, but if only wilted, do not despair, just throw them into a tub of water and leave them there for some hours, over night if you like, and next day you will probably be delighted to find that they have regained all their original freshness and beauty. This is especially apt to be the case with the fleshy *Botrychiums* or grape ferns. Once I successfully

tried the experiment of taking one of these which had been somewhat wilted before pressing, and with the mounting of which I was dissatisfied, off from the sheet of paper on which it had been glued for some months, freshening it in water and then remounting it. Before pressing these soaked fronds however the extra moisture should be carefully removed with a soft cloth, or blotter, and the absorbent paper in the press changed within a few hours. In an emergency when no press is at hand, two pieces of stiff pasteboard or smooth wood, a quantity of smooth newspapers and some heavy stones or flatirons will answer fairly well instead. A press which comes for the purpose, made of crossed slats of hard wood and which can be bought for a moderate sum at a botanical supply store, is the best thing; or if this is considered too clumsy, two pieces of heavy book binders' board will answer, and will take up less room. The press must of course be somewhat larger than the mounting sheets. Some quires of white absorbent paper called newspaper stock, and a quantity of gray felt blotting paper which comes for the purpose are needed, and are also to be had at a botanical supply store as well as other things which will be required. To fasten the press have ready three or four strong flexible straps of leather or webbing furnished with good patent buckles. Leather straps with ordinary buckles which require holes seem usually just too loose or just too tight, while with patent buckles the straps may be pulled tight to the limit of strength. In addition to the straps I often supplement with stones, heavy books or irons to add to the pressure. Sheets of corrugated pasteboard placed between the blotters, by allowing a current of air to pass through are thought to hasten the drying process.

When ready to put them in press, lay the gathered specimens arranged as gracefully as possible separately,

each with its label beside it, within folded sheets of the white paper (newspaper stock, or newspapers may be used if more convenient). Carefully straighten out with a fine brush or small pointed stick any crumpled pinules. Each white sheet containing the fronds to be pressed should be placed between two of the gray felt papers, then one of the corrugated pasteboards, the gray again and so on. The gray blotters should be changed for fresh dry ones at least once within the first twenty-four hours (oftener will do no harm) and it is well to change again two or three times within the next few days. The blotters when removed should be dried in the sun or other warm place in readiness to be used again. The filled press should also be left in a warm place to hasten the drying process and so perhaps help to preserve the color. The specimens should be left untouched in the white paper until quite dry, changing only the gray felt.

How best to preserve the color of dried specimens seems to be an unsolved problem. Sometimes they will remain green and fresh looking for years, again some will quickly turn brown without apparent reason. To absorb the moisture from them as quickly as possible would seem to be one important factor, and perhaps the age of the leaf at the time of gathering may be another. It is said that powdered salicylic acid or boric acid sprinkled on them before drying, or laying them between papers dipped in a solution of one of these, will preserve their color, but I do not know whether or not this has been proven. Certainly it is not generally practiced, but it would be an interesting experiment to try.

CAMBRIDGE, MASS.